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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/067,981

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Susumu Ohsawa

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12/19/2005

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EXAMINER

MEEK, JACOB M

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/067,981

Applicant(s)

OHSAWA, SUSUMU

Examiner

Jacob Meek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 - 4 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al (US-6,577,353).

With regard to claim 1, Welles discloses a receiver comprising: at least 2 antennas for receiving broadcast waves each carrying an information signal (see figure 1, references 101, 102, 103 and column 3, lines 15 – 17); signal amplifiers for respectively amplifying broadcast waves that have been received by antennas (see figure 1, reference 104 & 105 and figure 3, reference 301, 302, 303 and column 4, lines 8 – 13); a signal superposing part for superposing amplified signals to produce and output signal (see figure 3, 310 where this is interpreted as equivalent); a demodulating/reproducing part for demodulating the output signal from signal superposing part and for reproducing information signals included in output signal (see figure 1, references 108, 109) ; demodulating / reproducing part being adapted to detect qualities of respective ones of reproduced information signals so as to produce a deterioration signal showing deterioration in quality in either one of the reproduced

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information signals (see figure 1, 111 and column 3, lines 42 – 51); and a control part for performing a control operation to reduce number of broadcast wave signals in output signal in response to deterioration signal (see figure 1, 110 and column 3, lines 42 – 51 and column 4 lines 13 – 25). Welles describes his device as a combiner, not a superposer. Review of the operation of Welles' device indicates that the description of a superposer, as opposed to a combiner, would be an obvious variation and there obvious to one of ordinary skill in the art at the time of invention.

With regard to claim 2, Welles discloses a receiver comprising: at least 2 antennas for receiving broadcast waves each having a common content and each carrying an information signal (see figure 1, references 101, 102, 103 and column 3, lines 15 – 17); signal amplifiers for respectively amplifying broadcast waves that have been received by antennas (see figure 1, reference 104 & 105 and figure 3, reference 301, 302, 303 and column 4, lines 8 – 13); a signal superposing part for superposing amplified signals to produce and output signal (see figure 3, 310 where this is interpreted as equivalent); a demodulating/reproducing part for demodulating the output signal from signal superposing part and for reproducing information signals included in output signal (see figure 1, references 108, 109) ; demodulating / reproducing part being adapted to detect qualities of respective ones of reproduced information signals so as to produce a deterioration signal showing deterioration in quality in either one of the reproduced information signals (see figure 1, 111 and column 3, lines 42 – 51); and a control part for performing a control operation to exclude either one of broadcast wave signals in that has high noise level (see column 5, 37 – 50 where noise level is a known quality measure of a signal) from output signal in response to deterioration signal (see figure 1, 110, 111 and column 3, lines 42 – 51 and column 4 lines 13 – 25). Welles describes his device as a combiner, not a superposer. Review of the operation of Welles' device indicates

that the description of a superposer, as opposed to a combiner, would be an obvious variation and there obvious to one of ordinary skill in the art at the time of invention.

With regard to claim 3, Welles discloses a receiver comprising: at least 2 antennas for receiving broadcast waves being broadcasted from a plurality of broadcasting systems and each carrying an information signal (see figure 1, references 101, 102, 103 and column 3, lines 15 – 17), the plurality of broadcasting systems including a first group consisting of at least one broadcast wave signal (see column 3, lines 16 – 29) for which broadcast waves are reproduced, and a 2<sup>nd</sup> group consisting of remaining broadcasting systems; signal amplifiers for respectively amplifying broadcast waves that have been received by antennas (see figure 1, reference 104 & 105 and figure 3, reference 301, 302, 303 and column 4, lines 8 – 13); a signal superposing part for superposing amplified signals to produce and output signal (see figure 3, 310 where this is interpreted as equivalent); a demodulating/reproducing part for demodulating the output signal from signal superposing part and for reproducing information signals included in output signal (see figure 1, references 108, 109) ; demodulating / reproducing part being adapted to detect qualities of respective ones of reproduced information signals so as to produce a deterioration signal showing deterioration in quality in either one of the reproduced information signals (see figure 1, 111 and column 3, lines 42 – 51); and a control part for performing a control operation to exclude either one of broadcast wave signals in that has high noise level (see column 5, 37 – 50 where noise level is a known quality measure of a signal) from output signal in response to deterioration signal (see figure 1, 110, 111 and column 3, lines 42 – 51 and column 4 lines 13 – 25). Welles describes his device as a combiner, not a superposer. Review of the operation of Welles' device indicates that the description of a superposer, as opposed to a combiner, would be an obvious variation and there obvious to one of ordinary skill in the art at the time of invention.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al ('353) in view of Briskman (US-5,592,471).

With regard to claim 4, Welles discloses a receiver comprising: at least 2 antennas for receiving broadcast waves being broadcasted from a plurality of broadcasting systems and each carrying an information signal (see figure 1, references 101, 102, 103 and column 3, lines 15 – 17), the plurality of broadcasting systems including a first group consisting of at least one broadcast wave signal (see column 3, lines 16 – 29) for which broadcast waves are reproduced, and a 2<sup>nd</sup> group consisting of remaining broadcasting systems; signal amplifiers for respectively amplifying broadcast waves that have been received by antennas (see figure 1, reference 104 & 105 and figure 3, reference 301, 302, 303 and column 4, lines 8 – 13); a signal superposing part for superposing amplified signals to produce and output signal (see figure 3, 310 where this is interpreted as equivalent); a demodulating/reproducing part for demodulating the output signal from signal superposing part and for reproducing information signals included in output signal (see figure 1, references 108, 109) ; demodulating / reproducing part being adapted to detect qualities of respective ones of reproduced information signals so as to produce a deterioration signal showing deterioration in quality in either one of the reproduced information signals (see figure 1, 111 and column 3, lines 42 – 51); and a control part for performing a control operation to exclude either one of broadcast wave signals in that has high noise level (see column 5, 37 – 50 where noise level is a known quality measure of a signal) from output signal in response to deterioration signal (see figure 1, 110, 111 and column 3, lines 42 – 51 and column 4 lines 13 – 25). Welles describes his device as a combiner, not a superposer. Review of the operation of Welles' device indicates that the description of a superposer, as opposed to a combiner, would be an obvious

variation and there obvious to one of ordinary skill in the art at the time of invention. Welles is silent with respect to the respective broadcast of common content. Briskman discloses a receiver for the reception of diversely broadcast signals having common content (see column 2, lines 31 – 35) utilizing multiple antennas (see figure 8C), and which also discloses many aspects of applicant's claimed invention. It would have been obvious to one of ordinary skill in the art at the time of invention that a diversity receiver could be provided in Welles system as he provides multiple tuners for the reception of signals.

### ***Other Cited Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mogi et al (US-5,159,707) discloses a receiver with control mechanism for control of antenna signals.

Hirose (US-5,203,018) discloses a receiver with control mechanism for control of antenna signals.

Araki (US-5,887,028) discloses a receiver with control mechanism for control of antenna signals.

Kuo et al (US-6,064,865) discloses a receiver with control mechanism for control of antenna signals including weighting of the signals.

Hwang (US-6,115,591) discloses a receiver with control mechanism for control of amplifier signals received from antennas based on signal quality.

Lindenmeier et al (US-6,169,888) discloses a receiver with control mechanism for control of antenna signals.

Marko (US-6,823,169) discloses a receiver for the reception of signals from a multiplicity of transmitters with means for combining received signals.

Edwards et al (US-6,873,834) discloses a receiver with control mechanism for control of antenna signals based on signal quality.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM  
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